

REMARKS

The Examiner is respectfully requested to reconsider the application in view of the following remarks.

35 USC 102/103

Claim 1-9 and 13-16 are rejected under 35 USC 102(b) as anticipated by or, in the alternative, under 35 USC 103(a) as obvious over US3,384,574 (Halik et al.). The rejection is respectfully traversed for the following reason.

Claims 1-9 and 13-16 are rejected under 35 USC 103(a) as obvious over US5,713,964 (Schreiner et al.). The rejection is respectfully traversed for the following reason.

Claims 1-16 are rejected under 35 USC 103(a) as obvious over US5,689,031 (Berlowitz et al.) in combination with either US3,384,574 (Halik et al.), US3,985,638 (Kirk, Jr.) or US5,713,964 (Schreiner et al.). The rejection is respectfully traversed for the following reason.

The invention relates to a kerosene composition comprising **at least 99 wt%** of a) at least one n-paraffins and/or iso-paraffins, said n-paraffins and/or iso-paraffins having from 7 to 18 carbon atoms and b) at least one cyclo-paraffins and/or alkyl derivatives thereof having from 9 to 18 carbon atoms, wherein the ratio by weight of the n-paraffins and/or iso-paraffins to the cyclo-paraffins and/or alkyl derivatives thereof is from 92:8 to 25:75. The claimed invention provides a kerosene compositions for use as heating fuels that does not have an unpleasant odor and has a combustion exhaust gas that is clean and has high storage stability.

The Halik reference relates to a catalytic process for making **a jet fuel**. (see title of the invention) The invention relates to production of high quality jet fuel. The Examiner is of the position that the compositions set forth containing C10-C18 paraffin, naphthenes, and essentially no aromatics anticipate the kerosene compositions of claims 1, 3, 4 and 7. The invention provides a kerosene composition that is useful has heating fuels that eliminates unpleasant odor and has desirable heating oil properties such as clean combustion exhaust gas and high storage stability. A person skilled in the art will not look to a jet fuel to solve applicants' problem of an unpleasant odor in a heating fuel. Halik reference does not teach applicants invention of reduction of odor having oxidative stability by having at least 99wt% paraffins that have specified amount of n-paraffin and/or isoparaffins to cyclo paraffin and/or alkyl derivatives thereof ratio. Further the Halik product at column 11 still contains high amounts of naphthethenes after treatment.

The Schreiner reference relates to **a low smoke composition and firefighter training** process. The compositions preferably contain alkanes and avoid aromatics. **Ferrocene or certain other volatile iron compounds are incorporated in the compositions which are readily ignitable but not dangerously so**. The reference teaches that :

Normal paraffins (n-alkanes) are preferred in the hydrocarbon compositions of the invention. Cycloparaffins are also acceptable but not quite as usable as the normal paraffins, Isoparaffins usually detract from the invention composition, producing somewhat more smoke, but maybe present in alkane mixtures. (Column 4, lines 14-19)

The C8 – C16 alkanes, especially n-alkanes are preferred . . . N-alkanes above 16 carbon atoms are difficult to ignite and are too easy to extinguish. (column 4, lines 24-31)

The Schreiner reference is directed to firefighter training material and does not teach applicants invention of a kerosene oil (heating oil) comprising at least 99 wt% of a) at least one n-paraffins and/or iso-paraffins, said n-paraffins and/or iso-paraffins **having from 7 to 18 carbon atoms** and b) at least one cyclo-paraffins and/or alkyl derivatives thereof **having from 9 to 18 carbon atoms**, wherein **the ratio by weight of the n-paraffins and/or iso-paraffins to the cyclo-paraffins and/or alkyl derivatives thereof is from 92:8 to 25:75.**

The Berlowitz reference is directed to **diesel fuel** composition and process for its production. (see title). Berlowitz relates to a distillate material having a high cetane number and useful as diesel fuel or as a blending stock thereof. The reference discusses a clean distillate useful as diesel fuel but does not teach applicants kerosene oil (heating oil) comprising at least 99 wt% of a) at least one n-paraffins and/or iso-paraffins, said n-paraffins and/or iso-paraffins having from 7 to 18 carbon atoms **and b) at least one cyclo-paraffins and/or alkyl derivatives thereof having from 9 to 18 carbon atoms**, wherein **the ratio by weight of the n-paraffins and/or iso-paraffins to the cyclo-paraffins and/or alkyl derivatives thereof is from 92:8 to 25:75.** None of the secondary reference teach the desirability of having at least one n-paraffins and/or iso-paraffins, said n-paraffins and/or iso-paraffins having from 7 to 18 carbon atoms and b) at least one cyclo-paraffins and/or alkyl derivatives thereof having from 9 to 18 carbon atoms in a ratio by weight of the n-paraffins and/or iso-paraffins to the cyclo-paraffins and/or alkyl derivatives thereof is from 92:8 to 25:75 for odor reduction and oxidative stability in a heating oil.

The examiner has the burden to establish a *prima facie* case of unpatentability of the pending claims on any grounds, including obviousness. *In re Oetiker*, 24 U.S.P.Q.2d 1443 (Fed. Cir. 1992). If examination at the initial stage does not produce a *prima facie* case of unpatentability, then without more, the applicant is entitled to grant of The examiner has the burden to establish a *prima facie* case of unpatentability of the pending claims on any grounds, including obviousness. *In re Oetiker*, 24 U.S.P.Q.2d 1443 (Fed. Cir. 1992). If examination at the initial stage does not produce a *prima facie* case of unpatentability, then without more, the applicant is entitled to grant of the patent. *In re Oetiker*, 24 U.S.P.Q.2d 1443.

The examiner cannot point to a teaching in any of the cited references of a kerosene composition comprising at least 99 wt% of a) at least one n-paraffins and/or iso-paraffins, said n-paraffins and/or iso-paraffins having from 7 to 18 carbon atoms and b) at least one cyclo-paraffins and/or alkyl derivatives thereof having from 9 to 18 carbon atoms, wherein the ratio by weight of the n-paraffins and/or iso-paraffins to the cyclo-paraffins and/or alkyl derivatives thereof is from 92:8 to 25:75 useful for heating oil having the desired odor reduction and oxidative stability.

In view of the above amendments to the claims and remarks Applicant respectfully requests withdrawal of the 102 and 103 rejections.

Conclusion

Applicant respectfully requests entry of the amendments, withdrawal of the rejections, and allowance of all of the pending claims. The Commissioner is hereby authorized to charge any fee in connection with this paper to Deposit Account No. **19-1800 (File no. TS8067)**, maintained by Shell Oil Company. If it would be considered helpful in resolving any issues in the case, the Examiner is encouraged to contact the undersigned at the number below.

Respectfully submitted,

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